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PATENT

DOCKET GRUNECK 0009-US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: LENDLEIN *et al.* Examiner: To be assigned  
Serial No.: To be assigned Group Art Unit: To be assigned  
Filing Date: Filed herewith  
For: Photosensitive Polymeric Networks  
Customer No.: **23719** Kalow & Springut LLP  
488 Madison Avenue, 19th Floor  
New York, New York 10022

June 30, 2005

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

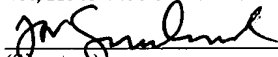
Commissioner for Patents:

In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, Applicants wish to make known to the Patent and Trademark Office the references set forth on the attached form PTO/SB/08A and B. Applicants do not admit that the references are "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserves the right to traverse or antedate any such reference. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with Applicants' duty to disclose all information of which they are aware and believe relevant to the examination of the above-identified application, Applicants believe that their invention is patentable.

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**Certificate of Express Mailing Under 37 C.F.R. § 1.10**

I hereby declare that on the date indicated below, this correspondence is being deposited with the United States Postal Service via Express Mail Label No. EV 279576923 US in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450 on the date shown below.

  
(Signature)

T. R. SMELANO  
(Printed Name of Person Signing Certificate)

30 JUNE 2005  
(Date)

# I. U.S. PATENT DOCUMENTS

PATENT NO.	DATE ISSUED/PUBLISHED	TITLE
3,894,075 to SCHOEN	08 July 1975	Preparation of Hydroxyl-Terminated Polyesters
4,035,548 to CHANG <i>et al.</i>	12 July 1977	Laminated Articles Prepared From Transparent, Non-Blooming Poly(lactone-urethane) Interlayers
4,085,092 to CHANG <i>et al.</i>	18 April 1978	Transparent, Optically Clear Poly(lactone-urethane) Interlayers for Laminated Safety Glass
4,857,579 to DOMEIER	15 August 1989	Thermosettable Fiber Reinforced Resin Compositions
4,923,934 to WERNER	08 May 1990	Interpenetrating Polymer Network of Blocked Urethane Prepolymer, Polyol, Epoxy Resin and Anhydride
5,098,776 to KOBAYASHI <i>et al.</i>	24 March 1992	Shape Memory Fibrous Sheet and Method of Imparting Shape Memory Property to Fibrous Sheet Product
5,155,199 to HAYASHI	13 October 1992	Makeup Material for Human Use
5,442,037 to LEE <i>et al.</i>	15 August 1995	Polyester Prepolymer Showing Shape-Memory Effect
6,156,842 to HOENIG <i>et al.</i>	05 December 2000	Structures and Fabricated Articles Having Shape Memory Made From $\alpha$ -Olefin/Vinyl or Vinylidene Aromatic and/or Hindered Aliphatic Vinyl or Vinylidene Interpolymers
6,160,084 to LANGER <i>et al.</i>	12 December 2000	Biodegradable Shape Memory Polymers
6,479,222 to JONES <i>et al.</i>	12 November 2002	Protective Overcoat for Photographic Elements
6,852,825 to LENDLEIN <i>et al.</i>	08 February 2005	Polyester Urethanes

Applicant: LENDLEIN *et al.*  
Serial No.: To be assigned  
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Information Disclosure Statement  
June 30, 2005  
Page 3 of 5

PATENT NO.	DATE ISSUED/PUBLISHED	TITLE
2004/0014929 A1 by LENDLEIN <i>et al.</i>	22 January 2004	Polyester Urethanes
2004/0024143 A1 by LENDLEIN <i>et al.</i>	05 February 2004	Interpenetrating Networks

## II. FOREIGN PATENT DOCUMENTS

PUBLICATION NO.	COUNTRY	PUBLICATION DATE
DE 689 07 553 T2	DE	09 May 1990
DE 689 08 081 T2	DE	20 October 1989
DE 694 26 882 T2	DE	04 April 1996
EP 0 422 693	EPO	17 April 1991
EP 0 696 605	EPO	31 July 1995
WO 99/42147	WIPO	26 August 1999
WO 99/42528	WIPO	26 August 1999
WO 01/91822	WIPO	06 December 2001
WO 03/084490	WIPO	16 October 2003
WO 03/084489	WIPO	16 October 2003
WO 03/084491	WIPO	16 October 2003

## III. NON PATENT PUBLICATIONS

International Search Report for PCT/EP03/14414, published as WO 2004/062706.

KIM, B. K. *et al.* (1996) "Polyurethanes having shape memory effects," *Polymer* 37/26:5781-5793.

LENDLEIN, A. *et al.*, "AB-Polymer Networks Based On Oligo(epsilon-Caprolactone) Segments Showing Shape-memory Properties," *Proc. Natl. Acad. Sci. USA*, vol. 98, no. 3, January 2001 (2001-01), Pages 842-847, XP002251532.

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June 30, 2005  
Page 4 of 5

LENDLEIN, A. *et al.*, "Formgedächtnispolymere," *Angewandte Chemie*, vol. 114, no. 12, 17 June 2002 (2002-06-17), pages 2138-2162, XP002251533.

DATABASE WPI, Section Ch, Week 199214, Derwent Publications Lt., London, GB; Class A12, AN 1992-109202 XP002251534 & JP 04 050234 A (Asahi Chem Ind Co Ltd), 19 February 1992 (1992-02-19).

PATENT ABSTRACTS OF JAPAN, vol. 016, no. 213 (C-0942, 20 May 1992 (1992-05-20) & JP 04 0451416 A (Noevir Co Ltd; Others: 01), 12 February 1992 (1992-02-12).

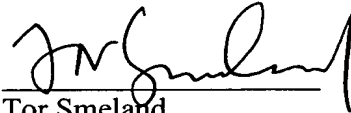
Applicant below provide U.S. family members of the foreign language references and, for the convenience of the Examiner.

ENGLISH LANGUAGE FAMILY MEMBERS OF FOREIGN LANGUAGE REFERENCES	
DE 689 07 553 T2	US 5,155,199
DE 694 26 882	US 5,442,037
DE 689 08 081	US 5,098,776
*WO 03/084490 A1	U.S. Appl. Ser. No. 10/511,019; translation included herewith
*WO 03/084491 A1	U.S. Appl. Ser. No. 10/510,873; translation included herewith
*WO 03/084489 A1	U.S. Appl. Ser. No. 10/510,889, translation included herewith
*Pending national stage applications in US; serial numbers and translations provided	

Applicant: LENDLEIN *et al.*  
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Page 5 of 5

Because no action has been taken on the merits, Applicants submit that no fee is due at this time. However, if a fee is deemed necessary, please charge Deposit Account No. 11-0171.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Tor Smeland', written over a horizontal line.

Tor Smeland  
Registration No.: 43,131  
Attorney for Applicant

Kalow & Springut LLP  
(212) 813-1600

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet **one** of **three****Complete if Known**

Application Number	To be assigned <b>10/541269</b>
Filing Date	Filed Herewith 30 June 2005
First Named Inventor	<b>LENDLEIN, Andreas</b>
Art Unit	To be assigned
Examiner Name	To be assigned
Attorney Docket Number	<b>GRUNECK 0009-US</b>

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 3,894,075	07-08-1975	SCHOEN	
		US- 4,035,548	07-12-1977	CHANG et al.	
		US- 4,085,092	04-18-1978	CHANG et al.	
		US- 4,857,579	08-15-1989	DOMIER	
		US- 4,923,934	05-08-1990	WERNER	
		US- 5,098,776	03-24-1992	KOBAYASHI et al.	
		US- 5,155,199	10-13-1992	HAYASHI	
		US- 5,442,037	08-15-1995	LEE et al.	
		US- 6,156,842	12-05-2000	HOENIG et al.	
		US- 6,160,084	12-12-2000	LANGER et al.	
		US- 6,479,222	11-12-2000	JONES et al.	
		US- 6,852,825	02-08-2005	LENDLEIN et al.	
		US- 2004/0014929 A1	01-22-2004	LENDLEIN et al.	
		US- 2004/0024143 A1	02-05-2004	LENDLEIN	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		DE 689 07 553 T2	05-09-1990	Mitsubishi Jukogyo KK		
		DE 689 08 081 T2	05-05-1990	Mitsubishi Jukogyo KK		
		DE 694 26 882 T2	04-04-1996	Tongyang Nylon Co. Ltd		
		EP 0 422 693	04-17-1991	Thoratec Labs Corp.		
		EP 0 696 605	02-14-1996	Neuenschwander et al.		
		WO 99/42147	08-26-1999	M.I.T.		

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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U. S. PATENT DOCUMENTS

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	To be assigned <b>10/541269</b>
				Filing Date	Filed Herewith <b>30 June 2005</b>
				First Named Inventor	<b>LENDLEIN, Andreas</b>
				Art Unit	To be assigned
Examiner Name	To be assigned				
Sheet	<b>three</b>	of	<b>three</b>	Attorney Docket Number	<b>GRUNECK 0009-US</b>

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		International Search Report for PCT/EP03/14414, published as WO 2004/062706.	
		KIM, B. K. et al. (1996) "Polyurethanes having shape memory effects," Polymer 37/26:5781-5793.	
		LENDLEIN, A. et al., "AB-Polymer Networks Based On Oligo(epsilon-Caprolactone) Segments Showing Shape-memory Properties," Proc. Natl. Acad. Sci. USA, vol. 98, no. 3, January 2001 (2001-01), Pages 842-847, XP002251532.	
		LENDLEIN, A. et al., "Formgedächtnispolymere," Angewandte Chemie, vol. 114, no. 12, 17 June 2002 (2002-06-17), pages 2138-2162, XP002251533.	
		DATABASE WPI, Section Ch, Week 199214, Derwent Publications Lt., London, GB; Class A12, AN 1992-109202 XP002251534 & JP 04 050234 A (Asahi Chem Ind Co Ltd), 19 February 1992 (1992-02-19).	
		PATENT ABSTRACTS OF JAPAN, vol. 016, no. 213 (C-0942, 20 May 1992 (1992-05-20) & JP 04 0451416 A (Noevir Co Ltd; Others: 01), 12 February 1992 (1992-02-12).	

Examiner Signature		Date Considered	
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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